



Principles of Public Health Program Planning And Their Application in Latin America

Dividends are higher from any well-conceived operation, whether by business or government. Especially in public health undertakings, where outcomes are not easily measurable, is advance planning essential. Here the evaluators describe certain basic principles and the facts and figures necessary for complete program planning, and strike a balance from the record of inter-American cooperative programs.

THE PLANNING that had gone into 10 years of operation of the bilateral health programs of the Institute of Inter-American Affairs was examined and appraised on the basis of the following general considerations:

1. Program planning is one of the most important functions of management, whether the enterprise be in the field of business, government, or philanthropy.

2. Experience has shown that the benefits or dividends from operations vary directly with the quality of planning. Poorly conceived plans giving a minimum of benefit usually call for the expenditure of just as much effort and funds in their execution as do good ones.

3. A business enterprise is established primarily to make money, and when dividends de-

cline or cease, search is immediately made to determine what is wrong. No such automatic criterion exists to test the efficiency of social organizations such as government and philanthropy; therefore, management of these organizations calls for a very highly developed sense of responsibility and critical self-evaluation.

4. By definition, a program is a prearranged plan. Also by definition, a plan is an arrangement of means or steps for the attainment of some objective. Thus, if the objective is not clearly defined, the arrangement of appropriate means or steps to achieve it will be difficult, and the program will lack precision and completeness.

Institute Program Objectives

The program of the Institute of Inter-American Affairs had more precise objectives during its earlier years than in more recent ones. At the time of its establishment, the objectives were: (a) to improve health conditions in strategic areas, particularly with relation to the requirements of the Armed Forces of the United States and those of its American allies; (b) to carry out the obligations of the United States Government assumed by it under the resolution

This is the eighth in a series of excerpts from the Public Health Service's evaluation of a decade of operation of the Institute of Inter-American Affairs cooperative health programs. Background information on the evaluation survey and on the origin and structure of these programs can be found in the September 1953 issue of *Public Health Reports*, beginning on page 829.

regarding the health and sanitation problems of the Americas which had been adopted by the Third Meeting of Ministers of Foreign Affairs in Rio de Janeiro; (c) to make possible increased production of critical materials in areas where bad health conditions existed; and (d) to demonstrate by deeds as well as words the tangible benefits of democracy and to win active support of the civilian population.

The first three of these objectives were intimately related to the war effort, and the success in achievement could be measured objectively by the health records of the Armed Forces personnel stationed in the Latin American Republics and by the rate of production of critical materials. However, even though the primary aims were to meet an emergency need, there was a constant interest in long-range projects looking toward improvement of conditions in the hemisphere. Nonetheless, the program in the early years must be viewed as a part of the war effort and evaluated on that basis. A highly creditable level of achievement was attained during this period.

After the Second World War these objectives were replaced by others. In the Institute of Inter-American Affairs Act of 1947 (Public Law 369, 80th Cong.), which authorized the continuance of the Institute, it was stated that the purposes of the Institute should be "to further the general welfare of, and to strengthen friendship and understanding among, the peoples of the American Republics through collaboration with other governments and governmental agencies of the American Republics in planning, initiating, assisting, financing, administering and executing technical programs and projects, especially in the fields of public health, sanitation, agriculture and education."

In line with this directive the Institute declared that the broad, basic objective of its postwar program would be to raise the level of living of the people in the several American Republics, and it viewed this objective as within the framework of a larger one—peace and prosperity in the Western Hemisphere.

Thus, postwar objectives were general, and evaluation of success in attaining them was therefore more difficult. The task was further complicated by the fact that many forces were at work, striving to achieve the very same ob-

jectives. Since the survey was concerned with only one part of the Institute program—health and sanitation—the following criteria were established for measuring success: (a) the extent to which the indigenous health organizations were being developed and stabilized; (b) the rate at which programs and methods were being incorporated into the permanent public health structure; and (c) the extent to which health habits and practices of the people were being influenced.

Responsibility for Planning

The program in each country had to be directed toward the achievement of the broad objectives set forth in the basic agreements between the United States Government and the government of the host country. The responsibility for preparing a detailed plan of operation was shared by the minister of the unit of the host government in which the *Servicio* was established and the chief of the United States field party, who was usually also the director of the *Servicio*.

Program planning ranged from excellent to mediocre. There appeared to be a direct correlation between excellence of planning and the number of years a *Servicio* director had been in a given assignment. In several countries it was observed that the program had changed with each new chief of field party; therefore, the value that might be expected from prolonged intensive efforts was dissipated. Often planning was lost sight of in the pressure of discharging operational responsibilities.

In one country the program during the initial period resulted from dictation rather than joint planning. Instead of the appropriate type of program being determined on the basis of a study of the country's needs, it was determined ex cathedra by the minister and other high government officials. Ten new hospitals were built and 17 existing ones received substantial additions to their facilities. At the time of the field survey in late 1951, 3 of these new hospitals were still not in use. This was an example of poor planning, or more accurately, of no planning.

Foundation of Good Planning

A knowledge of certain basic facts concerning a country and its people is considered nec-

essary for sound program planning. Characteristics of the population, vital statistics, health institutions, health personnel, governmental structure, voluntary health agencies, social institutions and customs, economic status, and geography and climate are among the areas in which data should be obtained.

An increasingly active interest in program planning was found during the field survey in Latin America. Where the basic facts were incomplete and inadequate, steps were being taken to supplement them. It is recognized, of course, that the collection of basic data is a long and laborious task and that certain of the data will have to be kept current. Rarely will the director of the *Servicio* be able to accomplish the task by himself. The talents of all field party members and of many members of the national health service will have to be enlisted. A continuing responsibility for collecting and assembling basic data might well reside in a special committee appointed by the director of the *Servicio*.

Population Characteristics

The geographic distribution of the people is likely to have a direct bearing on the type of disease burden and the ease with which the people can be reached in a program for health betterment. If the population is predominantly rural, the problem of establishing contact between the people and the health service will tax the administrator's ingeniousness, and this problem will be even greater if the rural population lives on scattered farms rather than in villages.

The age level of the population will indicate whether the program should be directed primarily toward the health hazards of infancy, youth, and early adult life or toward the diseases that characterize old age.

The principal occupations should be known since certain occupations have intrinsic health hazards. The lumberjack in the endemic areas of jungle yellow fever, for example, is in special danger of contracting the disease. Among certain types of miners, silicosis may be a hazard. The factory worker from rural areas appears to be especially susceptible to tuberculosis.

Racial composition of the population should

be determined since susceptibility and resistance to certain diseases are known to be in some way related to race.

Knowledge concerning literacy will have value in determining the most effective means of communication. The techniques used in health education, for example, will have to be adjusted accordingly.

Vital Statistics

An accurate census is essential in every field of social endeavor. It not only provides the information required to establish the characteristics of the population, but it permits calculation of rates and establishment of baselines which are necessary in measuring the effectiveness of health programs.

The number of births, deaths, marriages, and divorces by age and sex where appropriate and by political subdivision should be known. An effort must be made to determine the nature of the mechanism established for the collection of vital statistics and the precision with which it functions; otherwise, it will be impossible to judge the reliability of the statistics or to determine how they may be improved.

The causes of death and, if obtainable, the causes of illness, will help identify the principal diseases of a population. Frequently, the incidence of a disease in an area, or in an entire country, is unknown, and just as frequently no mechanism for ascertaining the facts exists. In such circumstances, a sampling survey may have to be undertaken. The prevalence of hookworm infestation, for example, was not appreciated in many Latin American countries 30 years ago. Surveys revealed that hookworm infestation affected up to 100 percent of the population and that actual disease occurred in from 10 percent to 50 percent or more.

Information as to the average family income should serve as an ever-present warning to avoid activities that call for expenditures by householders beyond their financial competence.

Health Institutions

The majority of health institutions are concerned with the prevention, diagnosis, and treatment of disease. They include the health departments with their health centers, specialized clinics, and other preventive services; the

laboratories for the control of water, milk, and other food products, and the diagnosis of morbid conditions; and hospitals of all types.

Another smaller group of institutions whose importance cannot be overestimated is the research group. These institutions determine in large measure the rapidity with which advances may be achieved in medical care, both preventive and curative. Often, of course, the institutions primarily concerned with the application of medical knowledge, such as hospitals, diagnostic laboratories, and health departments, also engage in research. Their investigations are as likely to be focused on administrative practices and organization as on medical knowledge per se.

A complete list of these several institutions is necessary to determine whether or not they are readily accessible to the population and to what extent they are capable of meeting the needs of the country.

Health Personnel

The number and distribution of medical and health personnel serving a population and the nature and capacity of institutions for training such personnel should be determined as accurately as possible. The number of physicians, engineers, dentists, dental hygienists, hospital administrators, nurses, nurse's aides, social workers, sanitarians, dietitians, and other specialized workers will indicate where expansion of training institutions is most needed. The extent to which such personnel is concentrated in urban areas, especially when the rural population carries the principal disease burden, must also be known. Some estimate as to the quality as well as the quantity of workers in the health and medical fields is highly desirable, though obviously more difficult to determine.

Governmental Structure

The organization and the functions of each part of the host government having a responsibility in the health field should be recorded.

Though the ministry of health in Latin American countries usually carries the major obligation for health services, the ministry of social welfare and the ministry of social security,

where these exist, frequently administer a part, if not all, of the hospitals and custodial institutions of a country. The ministry of education frequently has the obligation to maintain school health services and to this extent also shares in the administration of the nation's health services. This ministry's major responsibility in the health field, however, usually concerns the preparation of medical and health personnel. The ministry of public works is likewise tied in closely with the health field in view of its role in the construction, and often design, of hospitals, health centers, water supplies, and sewage treatment plants.

Voluntary Agencies

A careful analysis of the programs conducted by voluntary health agencies should be made so that due weight may be given them in planning the national health programs. The Red Cross, for example, frequently operates schools of nursing and health centers. In a number of countries a large part of the campaigns against tuberculosis and the venereal diseases is carried on by voluntary organizations.

Social Institutions and Customs

Social institutions, customs, and cultural traits are less easily identified and understood than the infectious diseases, for example, but they are equally important, if not more so, in planning health programs. The health planner needs to be familiar with the current beliefs of folk medicine and the attitudes of people toward modern scientific medicine. He must have an understanding of the habits of the people, the motivations of individuals, and their goals in life. Land tenure laws, social legislation, and housing are also important subjects in this field.

Economics

The economic potentialities of a country, as well as its present status, must be understood as a basis for realistic planning and as a means of protection against undertakings which are beyond the national resources. The level of productivity, the nature of the labor market, the trend towards industrialization, the national income, and the tax system are additional matters requiring investigation.

The fields of health, education, agriculture, and industry are interrelated and interdependent. If the level of living of a people is to be raised, no one of them may be ignored. The planner in the health field must therefore understand the problems of education, agriculture, and industry and, whenever possible, should seek ways and means whereby the health program will aid and reinforce programs in these fields and should attempt to utilize related programs to aid the health programs.

Geography and Climate

The geographic and climatic characteristics of a country have a direct relationship to many of its health problems. Not only physical factors, such as altitude, latitude, soil, insolation, temperature range, humidity, and rainfall, but many biological factors as well, are involved. The fauna and flora also determine in no small measure the health hazards of an area.

Formulation of a Program

The next step in program planning is to determine from a study of such basic data what the outstanding problems of the country are and which ones are susceptible of solution. It is at this stage of planning that the experience and judgment of the minister and the chief of field party are of crucial importance. They and their advisers must assign priority values to the several problems calling for solution. Program formulation may then proceed.

Depending upon circumstances, the program objective may be attained by a single project, such as the installation of a water supply system, or by a series of projects, such as those aimed at the control of tuberculosis. In the latter case, one project of the series might be an epidemiological study of tuberculosis to determine its incidence rate, the principal avenues of dissemination, or the role that BCG vaccination might be expected to play. Another project might be a case-finding campaign. Still another could be the establishment of a tuberculosis hospital.

Though projects will differ widely in their aims and provisions, they should resemble one

another in their formulation. The project agreement drawn up by the chief of field party and the minister should provide the following information: (a) the nature of the problem and objective of the project; (b) any previous projects which are similar; (c) a complete description of the project, including the location, the reasons for selection of the project, and the manner in which it is to be developed; (d) a clearly defined plan of administration; (e) the proposed time schedule; (f) arrangements for the transfer of the project to the national health service; (g) an estimate of the amount of money to be spent; and (h) the sources of funds.

The project agreement should be so complete and well documented that a new chief of field party or a new minister would have no difficulty in understanding the project or in discharging his responsibilities for its successful completion. The goal which the project aims to achieve should be precise and limited so that the accomplishment may be measured objectively.

Evaluation of Program Planning

In general, project agreements were found to be well prepared. The principal shortcomings were (a) the frequent omission of terminal dates, despite the fact that provision usually existed for an extension of the date if it were required; and (b) the absence of arrangements for the orderly transfer of responsibility for the project from the *Servicio* to the appropriate government agency.

Planning for Transfer

Chiefs of field party were sometimes reluctant to relinquish responsibility for completed projects for reasons that seemed unconvincing. For example, fear was expressed that a project when transferred to the host government would not be maintained at the same level of efficiency as under *Servicio* administration. If this fear were supported by facts showing, for example, a lack of funds or personnel to carry on the project, it could only mean faulty planning. Such prejudgments were regarded as neither persuasive nor trustworthy. The better procedure would have been to try out the new administrative auspices. If failure ensued,

then the reasons for failure could be identified and appropriate corrections applied.

In one instance, the director of the *Servicio* declared a certain health center, which had been in operation long enough to be considered an accepted method for providing preventive medical services, to be indispensable to him as a training center for *Servicio* personnel. In this particular country, the ministry of health had a section in its organization charged with responsibility for the training of personnel, which could have been used to meet the *Servicio's* needs.

An example of inadequate planning for the final transfer of a project to the constituted health authorities of the cooperating countries was found in one country. Although at the time of the survey, *Servicio* operations were in the hands of Latin Americans, difficulties had been encountered in transferring completed projects to the national health department. What had not been done, or could not be done, was to transfer with completed projects the privileges and immunities enjoyed by the *Servicio* but denied to the national health department. By virtue of the basic agreement between the ministry of health and the Institute, the *Servicio* had relative freedom to hire and fire personnel and was exempt from many bureaucratic controls on administration and utilization of funds. The national health department, recognizing its inability to equal the effectiveness of the *Servicio*, had therefore been reluctant to assume responsibility for certain of the major health and sanitation projects. A *Servicio* responsibility for many years, these services should be relinquished; yet, it appears that for the present the *Servicio* will be required to continue their operation.

Conclusions

The indigenous health organizations in Latin America usually, but not invariably, have been developed and stabilized as a result of the *Servicio* projects. More attention to planning might well have mitigated some shortcomings, however.

The rate at which programs and methods were incorporated into the permanent public health structure has been generally satisfac-

tory, although incomplete planning sometimes has retarded the process.

Although the extent to which health habits and practices of the people have been influenced is difficult to evaluate precisely, many of the situations studied indicate that the people's habits and practices were, in fact, favorably influenced.

National Advisory Health Councils

A survey of health program planning cannot be limited to planning done by the *Servicios* since health programs in Latin America are for the most part formulated and executed by the constituted health authorities of the national, state, and local governments. In some countries private agencies play a major role in health activities. In almost all the countries, the Red Cross conducts a health program that supplements that of the government.

In certain countries the entire campaign against tuberculosis is the responsibility of a private or voluntary agency. Notable in this regard is the *Liga Ecuatoriana Anti-Tuberculosis* which maintains in various parts of the country 23 dispensaries and 8 hospitals with a total of 2,000 beds. Not infrequently the hospitals, or a large portion of them, are operated by a voluntary organization termed *Beneficencia*. These voluntary agencies are usually subsidized by government, and in addition they benefit from lotteries or special taxes authorized by government.

Because the ultimate responsibility for all health programs rests essentially with the government, considerable advantage could result from joint planning. Moreover, since the success of health programs, whether official or voluntary, depends to a considerable extent upon an alert and informed public, it would appear desirable for the public to be brought into a relationship with the official planners.

A mechanism to secure both the benefits of coordination and of broad public support of health programs would be a national health council, advisory in character. Such a council could be created by the ministry of health. Membership should include representatives from all the national agencies concerned with health, the voluntary organizations, the uni-

versities, and the technical schools, as well as persons from philanthropy, business, finance, and industry. The council's membership would thus represent a cross section of society of the nation and would embrace the planners, providers, and consumers of health programs.

The advisory character of the council should be maintained. It should have no executive, financial, or administrative responsibilities. However, because of its composition, its advice should carry great prestige. Health plans of government might thereby be greatly strengthened.

In countries where governments may on occasion change suddenly, a national advisory health council would have the added value of providing a link between the old and the new, giving greater continuity to health activities, especially planning.

National and International Conferences

A number of agencies in addition to the Institute of Inter-American Affairs are engaged in cooperative health programs with many of the governments of the American Republics. Important ones are the Pan American Sanitary Bureau, which serves as the regional office of the World Health Organization; the United Nations Children's Fund; the Kellogg Foundation; and the Rockefeller Foundation.

The interests of these several agencies are not so very different, one from the other, and their cooperative programs in the American Republics are in consequence closely related. In Chile, three of these agencies—the Kellogg Foundation, the Rockefeller Foundation, and the Institute of Inter-American Affairs—cooperated with the government in the development of nursing education and medical education. The latter two agencies worked with the government in establishing the National School of Public Health in Santiago.

The National School of Nursing of the Central University in Quito, Ecuador, is another example of joint action. The PASB, the IIAA and the Rockefeller Foundation joined forces in aiding the Ministry of Health in the development of this institution. Aid included the provision of two American nurses to help with

organization and guidance in the early years, the reconstruction of a building to house the school, the purchase of equipment, some assistance in the initial cost of operation, and provision for a consultation service.

In almost every Latin American country examples could be cited of participation by more than one of these agencies in the national health program. The fact that so little real overlap and duplication of program activities was observed is a tribute to those responsible locally. However, it must be recognized that there is a degree of competition among the agencies to secure cooperative projects and funds to finance them, with the consequent danger of adverse effect upon the national health budget.

It would be a part of good planning for these cooperating health agencies and the several national health services to adopt some device for protection against possible adverse effects from uncoordinated program developments. More important would be the positive benefits that could accrue from the application of the joint resources in technical skills and funds toward a common objective. To this end, it is suggested that clearinghouse conferences be established at both the international and national levels. At these conferences an opportunity would be provided each agency to describe its program interests and its plans for project development. Opportunities, if any, for joint action would become apparent.

A beginning at the international level has already been made in Washington, under the chairmanship of the director of WHO-PASB. Monthly meetings are being held with representatives from PASB, the IIAA, the Division of International Health of the Public Health Service, and other agencies. These have already proved useful.

A similar arrangement seems desirable for each American Republic where more than one foreign agency is cooperating. Since all international health agencies enter into bilateral agreements with the various governments in developing programs, the leadership in establishing clearinghouse conferences at the national level should be taken by the health authorities of each country.

technical publications

Fifty-first Annual Conference of the Surgeon General, Public Health Service, Chief, Children's Bureau, With State and Territorial Health Officers

Public Health Service Publication No. 307. 1953. 75 pages. Available on request to the Division of State Grants, Public Health Service, Washington 25, D. C.

The fifty-first annual conference of the Surgeon General, Public Health Service, and chief, Children's Bureau with the State and Territorial health officers, State mental health authorities, and representatives of State hospital survey and construction agencies was held December 8-11, 1952, in Washington. This publication constitutes the proceedings of the conference and includes the complete text of addresses given in the general sessions and the recommendations of the committees on environmental sanitation, Federal relations, hospitals, infectious diseases, maternal and child health, mental health, and special health and medical services. [Highlights of major addresses were published in *Public Health Reports*, February 1953, pp. 174-190.]

Health Manpower Source Book

Section 2. Nursing Personnel

Public Health Service Publication No. 263. 1953. Prepared by Helen G. Tibbetts and Eugene Levine. 88 pages; tables. 40 cents.

The second in a series of comprehensive source books on health manpower, this publication covers 50 years of nursing and contains 56 tables of data on nursing personnel, each preceded by a discussion of the background and methods used to gather the data.

The first part of the book deals with the general distribution of professional nurses; their age, sex, and marital status; licensure; and education. The second part presents data on the licensure and training of practical nurses. The last part of the book, fields of practice, gives comparative data for six fields of nursing and details on public health, industrial, and hospital nursing personnel.

A summary of trends is given at the beginning of the book. As of 1950 there were 249 active graduate nurses per 100,000 population in the United States. In 1910 the ratio was 55 per 100,000. In 1920 active graduate nurses were fewer than physicians; since 1930 they have outnumbered physicians. Since 1900 the proportion of men among active graduate and student professional nurses has declined from 6 percent to 2 percent, although their number has increased from 758 in 1900 to 11,329 in 1950.

Home Accident Prevention A Guide for Health Workers

Public Health Service Publication No. 261. 1953. 75 pages. 30 cents.

Accepting the thesis that the majority of home accidents can be prevented, this booklet presents an outline and guide to enable health workers to study and understand the chief causes of accidents in the home and to take measures that may prevent them. The material is prepared for the professional health worker on the premise that leadership in home accident prevention program development should be assumed by this group.

The problem of home accident prevention is defined in relation to other health needs. Factors, environmental and human, tending to cause accidents and their interrelationships are outlined. Suggested activities by agency, group, or individual for better understanding and treatment of

the problem are presented throughout the guide.

A 20-page list of selected references, coded to designate the various classifications of the content material, and a 2-page list of films and filmstrips are included.

Six Food Exchange Lists for Variety in Meal Planning

Public Health Service Publication No. 326. 1953. 4-fold leaflet. Available on request to Division of Chronic Disease and Tuberculosis, Public Health Service, Washington 25, D. C.

Selection of a varied diet, especially for the diabetic person, is made easier by the use of the six food exchange lists developed by committees of the American Diabetes Association and the American Dietetic Association, in cooperation with the Public Health Service. The leaflet sets forth six lists of food items—milk, vegetables, fruits, bread, meat, and fat. All foods within the same list contain approximately equal amounts of carbohydrate, protein, fat, and calories, and thus one food in a list may be substituted for another food on the same list. For example, on list 4 one small potato may be used in place of a slice of bread.

This leaflet does not give a diet prescription. A physician should prescribe the amounts of food and the number of exchanges allowed each day. The food exchange lists facilitate selection of a variety of foods for a diet that is being followed.

Publications for which prices are quoted are for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Orders should be accompanied by cash, check, or money order and should fully identify the publication (including its Public Health Service publication number). Single copies of most Public Health Service publications can be obtained without charge from the Public Inquiries Branch, Public Health Service, Washington 25, D. C.

Training Courses in Prothrombin Time Determinations

Clinical research during the past decade has shown that the proper use of anticoagulant drugs can reduce morbidity and mortality from thrombosis and embolism. Safe and effective use of these anticoagulants, however, requires a more complete laboratory control than is necessary for most drugs, since their safe administration depends upon reliable laboratory data for control of the dosage.

Refresher courses in this technique are offered by the heart section, Division of Chronic Disease and Tuberculosis, Public Health Service, with the sponsorship and/or cooperation of the various State health departments, American Heart Association, pathology societies, and other interested organizations. The purpose is to present to medical technicians the critique of performing accurate, reproducible prothrombin time determinations, and to afford an opportunity for supervised laboratory experience with these methods.

Services and materials available through the regional offices of the Department of Health, Education, and Welfare include a brief description of the course; services of a physician-director and a technician-instructor in planning and conducting the training course; a teaching manual; and laboratory manuals for participants.

Since the pilot technician-training program began in Massachusetts in 1950, refresher courses have been provided in 12 States and 1 Territory (see table). In at least 9 other States, technician-training is now being provided on a long-range basis by local institutions.

State	Number technicians trained	Number laboratories or hospitals represented	State	Number technicians trained	Number laboratories or hospitals represented
Arkansas.....	22	16	North Carolina....	47	38
Florida.....	88	64	South Carolina....	14	11
Idaho.....	6	5	Tennessee.....	10	8
Kansas.....	28	26	Utah.....	23	13
Maryland.....	1	1	Puerto Rico.....	15	11
Massachusetts....	71	55			
Montana.....	15	9	Total.....	366	279
New Jersey.....	26	22			

NOTE: At the time this table was prepared, a series of courses was being given in Virginia to about 18 technicians.